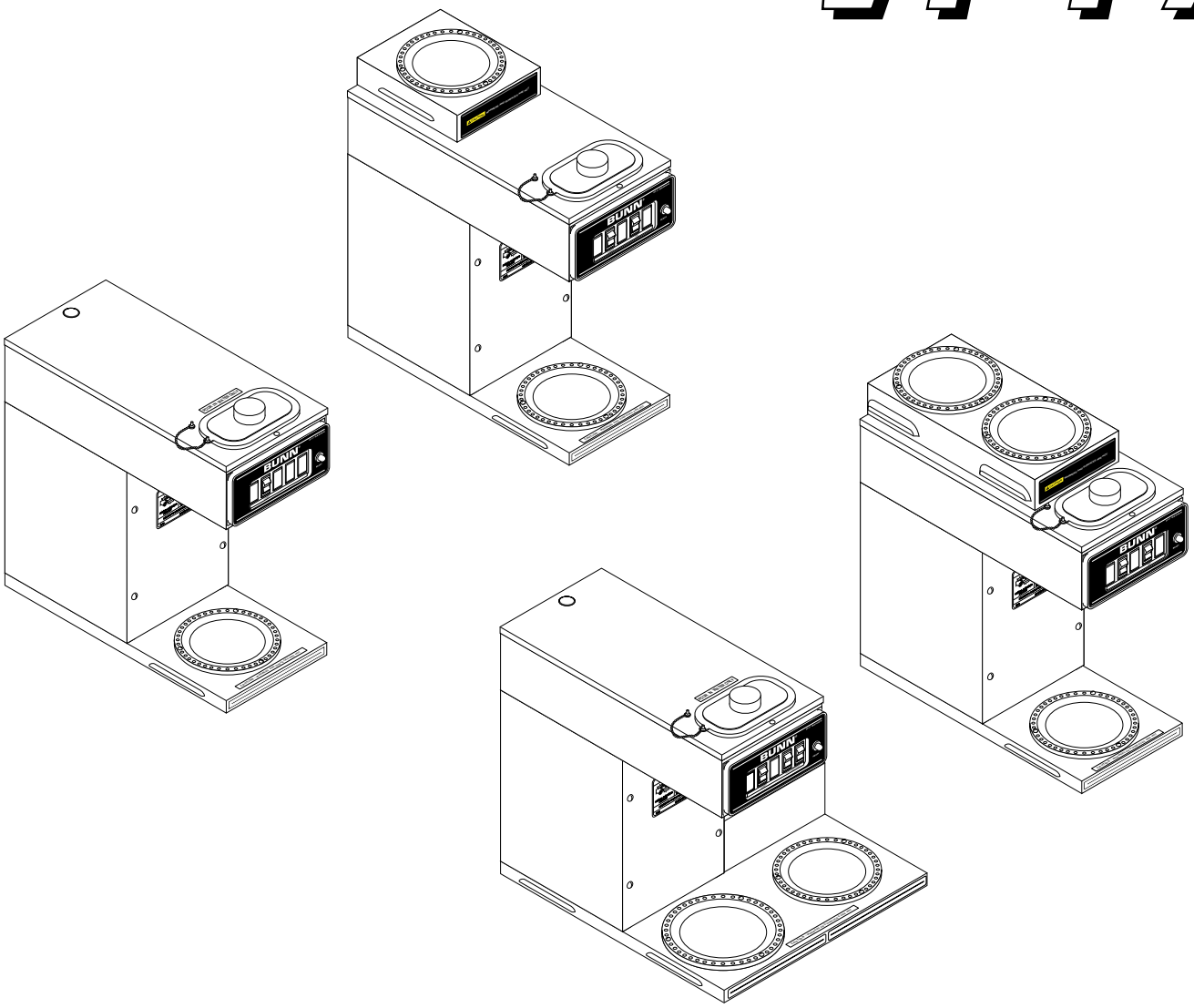
BUNN®

VP17



OPERATING & SERVICE MANUAL

BUNN-O-MATIC CORPORATION OF CANADA LTD.

280 INDUSTRIAL PARKWAY SOUTH
AURORA, ONTARIO. L4G 3T9
PHONE: (905) 841-2866 FAX: (905) 841-2775

10860.7000A 7/00 ©1996 Bunn-O-Matic Corporation

INTRODUCTION

This equipment will brew a half-gallon batch of coffee into an awaiting dispenser. It is only for indoor use on a sturdy counter or shelf.

WARRANTY

Bunn-O-Matic Corp. ("Bunn") warrants the equipment manufactured by it to be commercially free from defects in material and workmanship existing at the time of manufacture and appearing within one year from the date of installation. This warranty does not apply to any equipment, component or part that was not manufactured by Bunn or that, in Bunn's judgement, has been affected by misuse, neglect, alteration, improper installation or operation, improper maintenance or repair, damage or casualty.

THE FOREGOING WARRANTY IS EXCLUSIVE AND IS IN LIEU OF ANY OTHER WARRANTY, WRITTEN OR ORAL, EXPRESS OR IMPLIED, INCLUDING, BUT NOT LIMITED TO, ANY IMPLIED WARRANTY OF EITHER MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE. The agents, dealers or employees of Bunn are not authorized to make modifications to this warranty or to make additional warranties that are binding on Bunn. Accordingly, statements by such individuals, whether oral or written, do not constitute warranties and should not be relied upon.

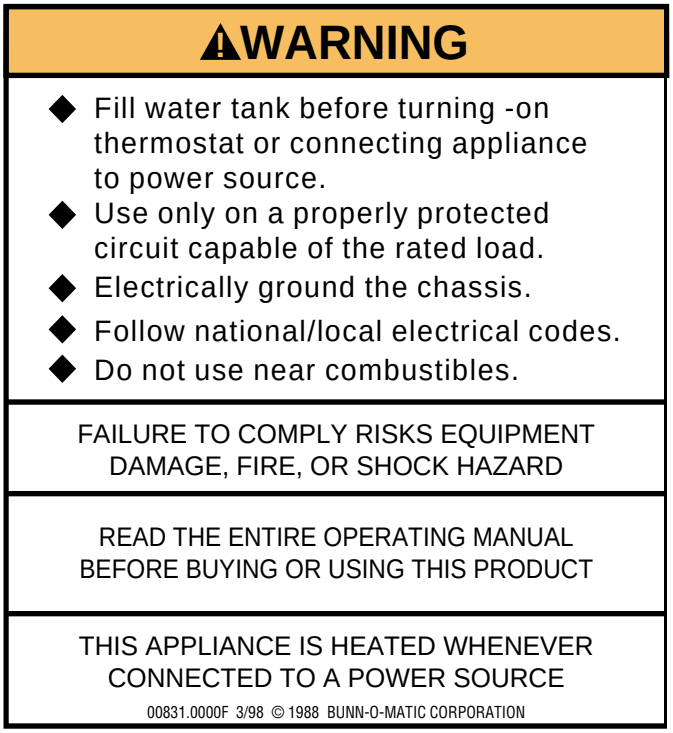
The Buyer shall give Bunn prompt notice of any claim to be made under this warranty by telephone at (905) 841-2866 or by writing to 280 Industrial Parkway South, Aurora, Ontario L4G 3T9. If requested by Bunn, the Buyer shall ship the defective equipment prepaid to an authorized Bunn service location. If Bunn determines, in its sole discretion, that the equipment does not conform to the warranty, Bunn shall repair the equipment with no charge for parts during the one year warranty period and no charge for labor by a Bunn Authorized Service Representative during the one year warranty period. If Bunn determines that repair is not feasible, Bunn shall, at its sole option, replace the equipment or refund the purchase price for the equipment.

THE BUYER'S REMEDY AGAINST BUNN FOR THE BREACH OF ANY OBLIGATION ARISING OUT OF THE SALE OF THIS EQUIPMENT, WHETHER DERIVED FROM WARRANTY OR OTHERWISE, SHALL BE LIMITED, AS SPECIFIED HEREIN, TO REPAIR OR, AT BUNN'S SOLE OPTION, REPLACEMENT OR REFUND. Bunn shall not be liable for any other damage or loss, including, but not limited to, lost profits, lost sales, loss of use of equipment, claims of Buyer's customers, cost of capital, cost of down time, cost of substitute equipment, facilities or services, or any other special, incidental or consequential damages.

USER NOTICES

Carefully read and follow all notices in this manual and on the equipment. All labels on the equipment should be kept in good condition. Replace any unreadable or damaged labels.

00831.7000


WARNING
Fill water tank before turning -on thermostat or connecting appliance to power source.
Use only on a properly protected circuit capable of the rated load.
Electrically ground the chassis.
Follow national/local electrical codes.
Do not use near combustibles.
FAILURE TO COMPLY RISKS EQUIPMENT DAMAGE, FIRE, OR SHOCK HAZARD
READ THE ENTIRE OPERATING MANUAL BEFORE BUYING OR USING THIS PRODUCT
THIS APPLIANCE IS HEATED WHENEVER CONNECTED TO A POWER SOURCE
00831.0000F 3/98 © 1988 BUNN-O-MATIC CORPORATION

00658.7999

WARNING
FUNNEL CONTENTS ARE HOT
DISCARD DECANTER IF:
• CRACKED
• SCRATCHED
• BOILED DRY
• HEATED WHEN EMPTY
• USED ON HIGH FLAME OR EXPOSED ELECTRIC ELEMENTS
READ THE ENTIRE OPERATING MANUAL BEFORE USING THIS PRODUCT FAILURE TO COMPLY RISKS INJURY
PN: 00658.0000F 6/98 © 1985 BUNN-O-MATIC CORPORATION

ELECTRICAL REQUIREMENTS

CAUTION - The brewer must be disconnected from the power source until specified in *Initial Set-Up.*

The brewer has an attached cordset and requires 2-wire grounded service rated 120 volts ac, 15 amp, single phase, 60 Hz.

INITIAL SET-UP

CAUTION - The brewer must be disconnected from the power source throughout the initial set-up, except when specified in the instructions.

1. Insert an empty funnel into the funnel rails.
2. Place an empty decanter under the funnel.
3. Place the heater switch of the brewer in the "OFF" lower position and connect the brewer to the power source.
4. Pour three pitchers of tap water into the screened area on top of the brewer. Allow approximately two minutes between pitchers for water to flow into the tank. While the third pitcher of water is entering the tank, the tank will fill to capacity and the excess will flow from the sprayhead, out of the funnel, and into the dispenser.
5. When the flow of water from the funnel stops, place the heater switch of the brewer in the "ON" upper position and wait approximately twenty minutes for the water in the tank to heat to the proper temperature. Some water will drip from the funnel during this time; this is due to expansion and should not occur thereafter.
6. Pour one pitcher of tap water into the screened area on top of the brewer.
7. After water has stopped flowing from the funnel, allow the water in the tank reheat to the proper temperature.
8. Empty the decanter. The brewer is now ready for use in accordance with the coffee brewing instructions.

COFFEE BREWING

1. Insert a BUNN® filter into the funnel.
2. Pour the fresh coffee into the filter and level the bed of grounds by gently shaking.
3. Slide the funnel into the funnel rails.
4. Place an empty dispenser beneath the funnel.
5. Pour one pitcher of tap water into the screened area on top of the brewer.
6. When brewing is completed, simply discard the grounds and filter.

CLEANING

1. The use of a damp cloth rinsed in any mild, non-abrasive, liquid detergent is recommended for cleaning all surfaces on Bunn-O-Matic equipment.
2. Check and clean the sprayhead. The sprayhead holes must always remain open.
3. With the sprayhead removed, insert the deliming spring (provided) all the way into the sprayhead tube. When inserted properly, no more than two inches of spring should be visible. Saw back and forth five or six times.

NOTE – In hard water areas, this may need to be done daily. It will help prevent liming problems in the brewer and takes less than a minute.

TROUBLESHOOTING

A troubleshooting guide is provided to suggest probable causes and remedies for the most likely problems encountered. If the problem remains after exhausting the troubleshooting steps, contact the Bunn-O-Matic Technical Service Department.

- Inspection, testing, and repair of electrical equipment should be performed only by qualified service personnel.
- All electronic components have 120 volt ac and low voltage dc potential on their terminals. Shorting of terminals or the application of external voltages may result in board failure.
- If an intermittent condition is encountered, the cause will likely be a switch contact or a loose connection at a terminal or crimp.
- This brewer is heated at all times. Keep away from combustibles.

WARNING–
- Exercise extreme caution when servicing electrical equipment.
- Unplug the brewer when servicing, except when electrical tests are specified.
- Follow recommended service procedures
- Replace all protective shields or safety notices

PROBLEM	PROBABLE CAUSE	REMEDY
Brew cycle will not start	1. No water	Check fill basin for obstructions.
	2. No power	Be sure the brewer is connected to the power source. Check circuit breakers or fuses.
Water is not hot	1. Tank Heater Switch	Refer to *Service* - Tank Heater Switch for testing procedures. See page 15
	2. Limit Thermostat **CAUTION -** Do not eliminate or bypass limit thermostat. Use only BOM replacement part #29329.7000	Refer to *Service* - Limit Thermostat for testing procedures. See page 10.
	3. Control Thermostat	Refer to *Service* - Control Thermostat for testing procedures. See page 8.
	4. Tank Heater	Refer to *Service* - Tank Heater for testing procedures. See page 12.

TROUBLESHOOTING (cont.)

PROBLEM	PROBABLE CAUSE	REMEDY
Inconsistent beverage level in dispenser	1. Syphon System	The brewer must be level or slightly lower in front to syphon properly.
	2. Lime Build-up **CAUTION -** Tank and tank components should be delimed regularly depending on local water conditions. Excessive mineral build-up on stainless steel surfaces can initiate corrosive reactions resulting in serious leaks.	Inspect the tank assembly for excessive lime deposits. Delime as required.
Spitting or excessive steaming	1. Lime Build-up **CAUTION -** Tank and tank components should be delimed regularly depending on local water conditions. Excessive mineral build-up on stainless steel surfaces can initiate corrosive reactions resulting in serious leaks.	Inspect tank assembly for excessive lime deposits. Delime as required.
	2. Control Thermostat	Refer to *Service* - Control Thermostat for testing procedures. See page 8.
Dripping from sprayhead	1. Syphon System	The brewer must be level or slightly lower in front to syphon properly.
	2. Lime Build-up **CAUTION -** Tank and tank components should be delimed regularly depending on local water conditions. Excessive mineral build-up on stainless steel surfaces can initiate corrosive reactions resulting in serious leaks.	Inspect the tank assembly for excessive lime deposits. Delime as required.

TROUBLESHOOTING (cont.)

PROBLEM	PROBABLE CAUSE	REMEDY
Beverage overflows dispenser	1. Dispenser	The dispenser must be completely empty before starting a brew cycle.
Weak beverage	1. Filter Type	BUNN® paper filters must be used for proper extraction.
	2. Coffee Grind	A fine or drip grind must be used for proper extraction.
	3. Sprayhead	A six-hole stainless steel sprayhead must be used for proper extraction.
	4. Funnel Loading	The BUNN® paper filter must be centered in the funnel and the bed of ground leveled by gentle shaking.
	5. Water Temperature	Place an empty funnel on an empty dispenser beneath the sprayhead. Initiate a brew cycle and check the water temperature immediately below the sprayhead with a thermometer. The reading should not be less than 195°F. Adjust the control thermostat to increase the water temperature. Replace if necessary.
Dry coffee grounds remain in the funnel	1. Funnel Loading	The BUNN® paper filter must be centered in the funnel and the bed of grounds leveled by gently shaking.
Brewer is making unusal noises	1. Tank Heater	Remove and clean lime off the tank heater. See page 14
Cool beverage serving temperature	1. ON/OFF Warmer Switch(s)	Refer to *Service* - ON/OFF Warmer Switch for testing procedures. See page 10
	2. Warmer Element(s)	Refer to *Service* - Warmer Element(s) for testing procedures. See page 14

SERVICE

This section provides procedures for testing and replacing various major components used in this brewer should service become necessary. Refer to *Troubleshooting* for assistance in determining the cause of any problem.

WARNING - Inspection, testing, and repair of electrical equipment should be performed only by qualified service personnel. The brewer should be unplugged when servicing, except when electrical tests are required and the test procedure specifically states to plug-in the brewer.

COMPONENT ACCESS

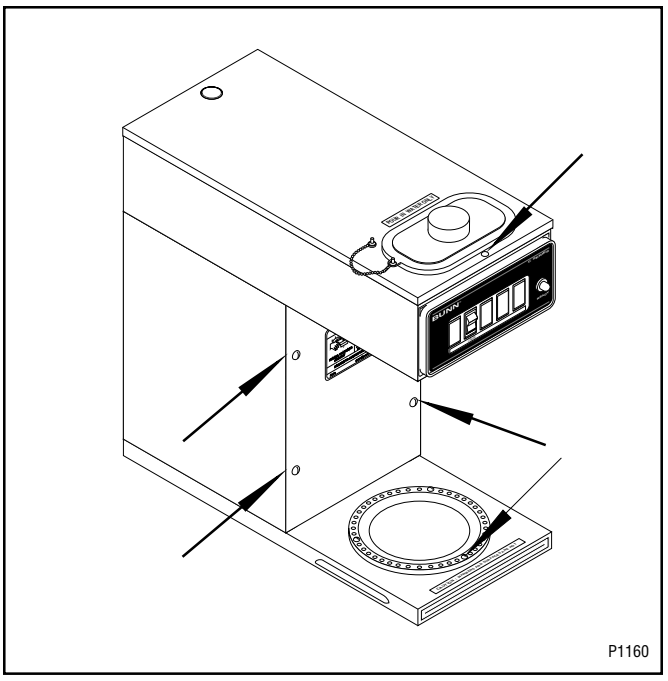
WARNING - Disconnect the brewer from the power source before the removal of any panel or the replacement of any component.

All components are accessible by the removal of the top cover and front inspection panel and warmer assemblies.

The top cover is attached with one #4-40 screw.

The front inspection panel is attached with four #6-32 screws.

The warmer assembly is attached with three #4-40 screws.



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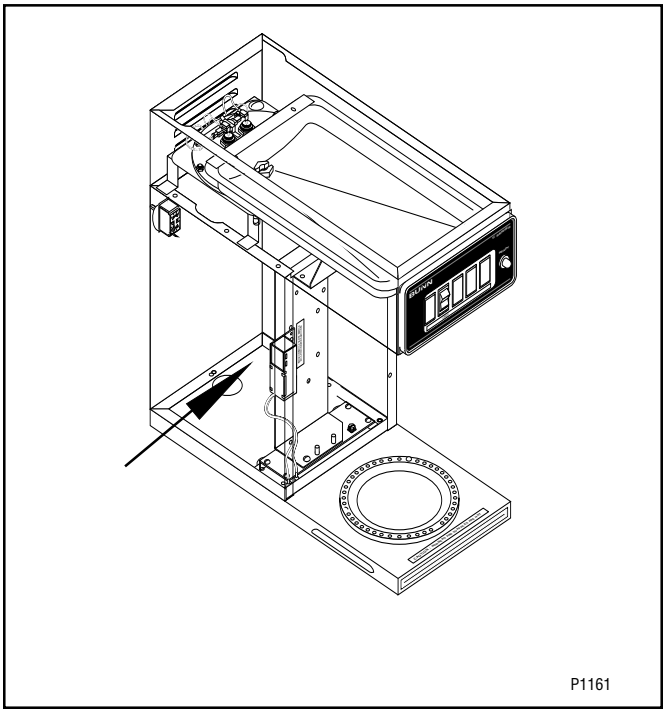
CONTROL THERMOSTAT



Location:

The control thermostat is located inside the trunk on the left side of the component bracket.

SERVICE (cont.)

CONTROL THERMOSTAT (cont.)

Test Procedures:

1. Disconnect the brewer from the power source.
2. Locate the blue wire on the control thermostat.
3. Check the voltage across the blue wire on the control thermostat and the white wire on the tank heater with a voltmeter. Connect the brewer to the power source. The indication must be 120 volts ac.
4. Disconnect the brewer from the power source.

If voltage is present as described, proceed to #5.
If voltage is not present as described, refer to the wiring diagrams and check the brewer wiring harness.

5. Locate the black wire on the control thermostat.
6. Gently remove the capillary bulb and grommet from the tank.
7. Check the voltage across the black wire of the control thermostat and the white wire on the tank heater with a voltmeter when the control thermostat is turned "ON" (Fully clockwise). Connect the brewer to the power source. The indication must ber 120 volts ac.
8. Disconnect the brewer from the power source.

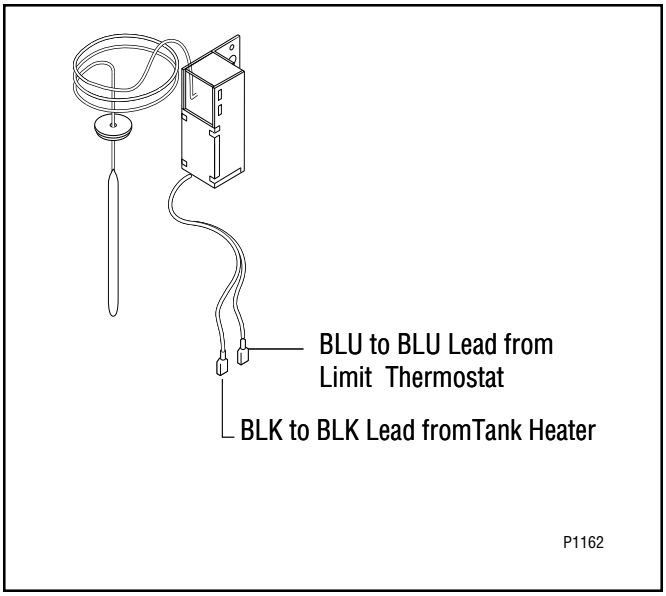
If voltage is present as described, reinstall the capillary tube into the tank to the line 4.5" above the bulb, the control thermostat is operating properly.
If voltage is not present as described, replace the thermostat.

Removal and Replacement:

1. Remove wires from control thermostat leads.
2. Remove the thermostat capillary bulb by firmly pulling-up on the capillary at the tank lid. This will disengage the grommet from the tank lid.
3. Remove the one #8-32 screw securing the control thermostat to the component bracket in the trunk.
4. Slide the grommet to the line 4.5" above the bulb on the new capillary tube.
5. Insert the capillary bulb through the hole in the tank lid and press the grommet firmly and evenly so that the groove in the grommet fits into the tank lid.
6. Carefully bend the capillary tube so that the tube and bulb inside the tank are in the vertical position.

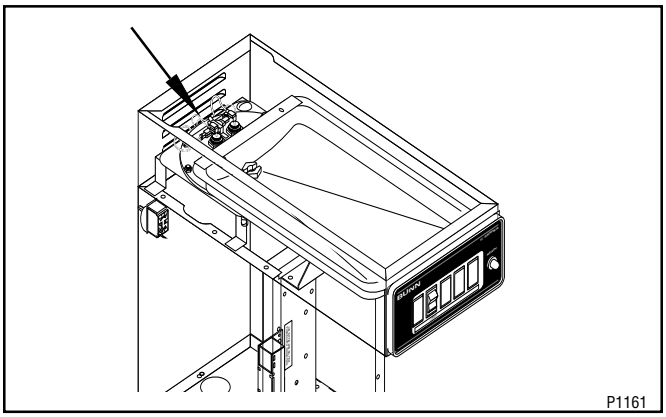
NOTE - The capillary tube must be clear of any electrical termination and not kinked.

7. Using one #8-32 screw secure the control thermostat to the component bracket inside the trunk.
8. Refer to the illustration below when reconnecting the wires.
9. Adjust the control thermostat as required.



SERVICE (cont.)

LIMIT THERMOSTAT



Location:

The limit thermostat is located inside the rear of the hood on the tank lid.

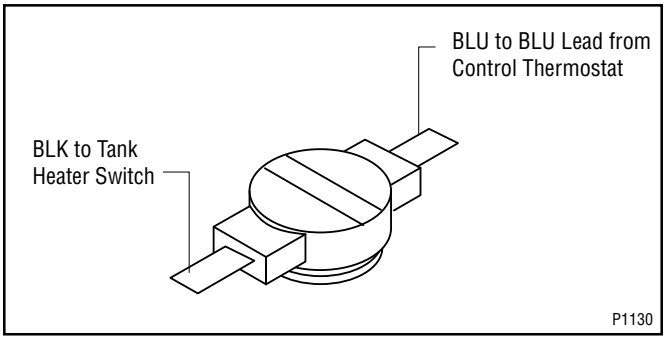
Test Procedures:

1. Disconnect the brewer from the power source.
2. Disconnect the blue and black wires from the limit thermostat.
3. Check for continuity across the limit thermostat terminals with a ohmmeter.

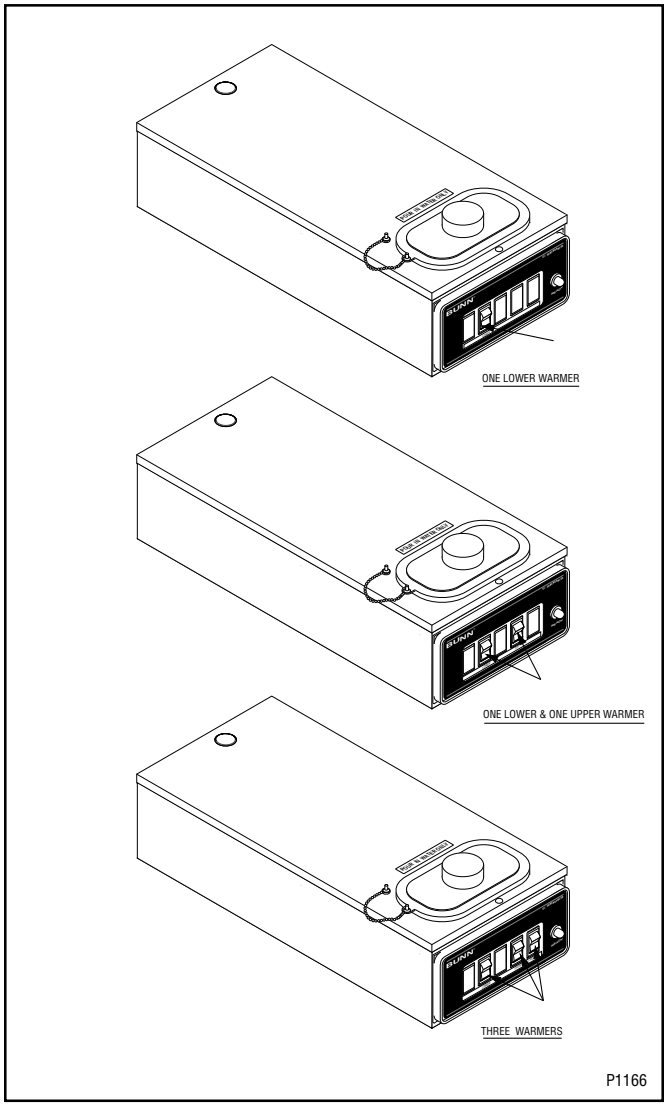
If continuity is present as described, the limit thermostat is operating properly.
If continuity is not present as described, replace the limit thermostat.

Removal and Replacement:

1. Remove all wires from limit thermostat terminals.
2. Carefully slide the limit thermostat out from under the retaining clip and remove limit thermostat.
3. Carefully slide the new limit thermostat into the retaining clip.
4. Refer to the illustration below when reconnecting the wires.



ON/OFF WARMER SWITCH



Location:

The ON/OFF warmer switch(s) are located on the front of the hood.

Test Procedure:

1. Disconnect the brewer from the power source.
2. Viewing the switch from the back remove the white or red wire from the upper terminal and the black wire from the center terminal.
3. Check the voltage across the white wire and the black wire with a voltmeter. Connect the brewer to the power source. The indication must be 120 volts ac.
4. Disconnect the brewer from the power source.

SERVICE (cont.)

ON/OFF WARMER SWITCH (cont.)

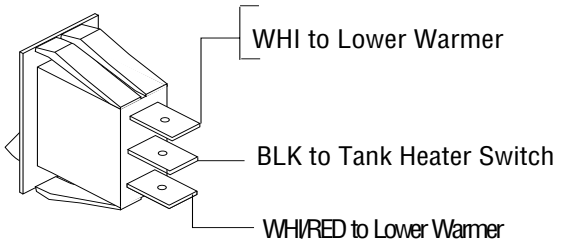
If voltage is present as described, reconnect the white or red wire and proceed to #5.
If voltage is not present as described, refer to the *Wiring Diagrams* and check the brewer wiring harness.

5. With the black wire removed, remove the wire from the lower terminal.
6. Check for continuity across the center and lower terminal with the switch in the "ON" position. Continuity must not be present when the switch is in the "OFF" position.

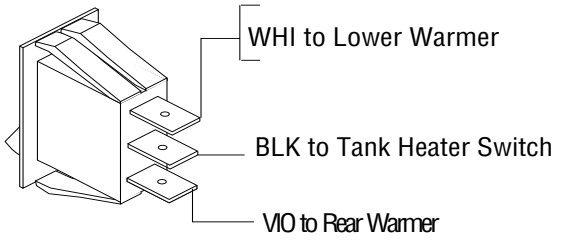
If continuity is present as described, reconnect the black wire to the center terminal and the wire to the lower terminal.
If continuity is not present as described, replace the switch.

Removal and Replacement:

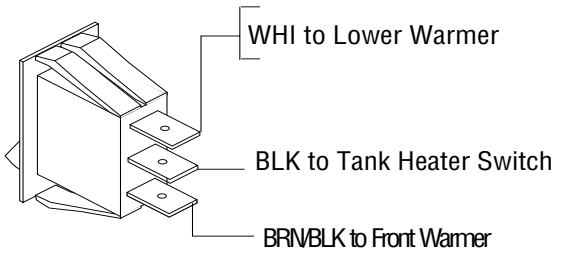
1. Remove the wires from the switch terminals.
2. Compress the clips inside the hood and gently push the switch through the opening.
3. Push the new switch into the opening and spread the clips to hold switch in the hood.
4. Refer to the following illustration when reconnecting the wires.



ONE LOWER WARMER



ONE UPPER WARMER

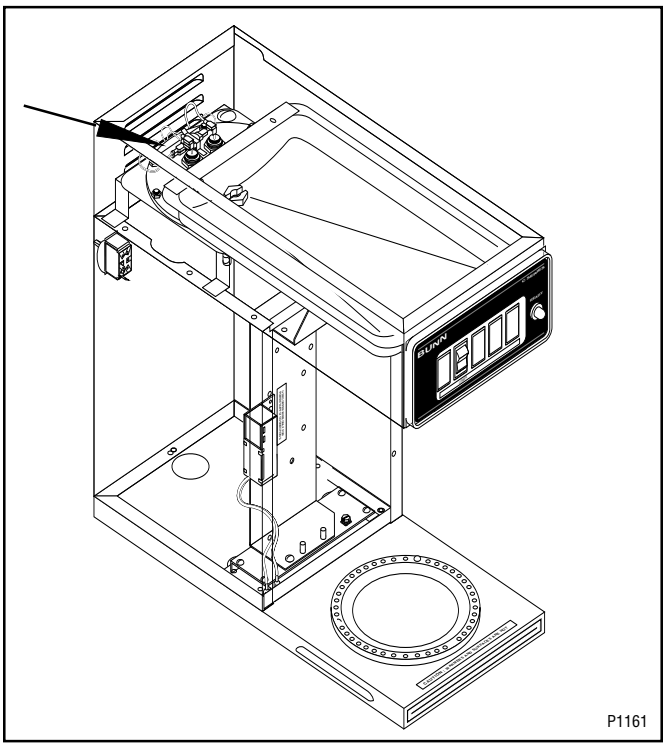


TWO TOP OR SIDE WARMERS

P1165

SERVICE (cont.)

TANK HEATER



Location:

The tank heater is located inside the tank and secured to the tank lid.

Test Procedures:

1. Disconnect the brewer from the power supply.
2. Check the voltage across the black and white wires with a voltmeter. Connect the brew to the power source. The indication must be 120 volts ac.
3. Disconnect the brewer from the power source.

If voltage is present as described, proceed to #4
If voltage is not present as described, refer to the *Wiring Diagrams* and check wiring harness.

4. Disconnect the black wire and the white wire or red wire from the tank heater terminals.
5. Check for continuity across the tank heater terminals.

If continuity is present as described, reconnect the wires, the tank heater is operating properly. If continuity is not present as described, replace the tank heater.

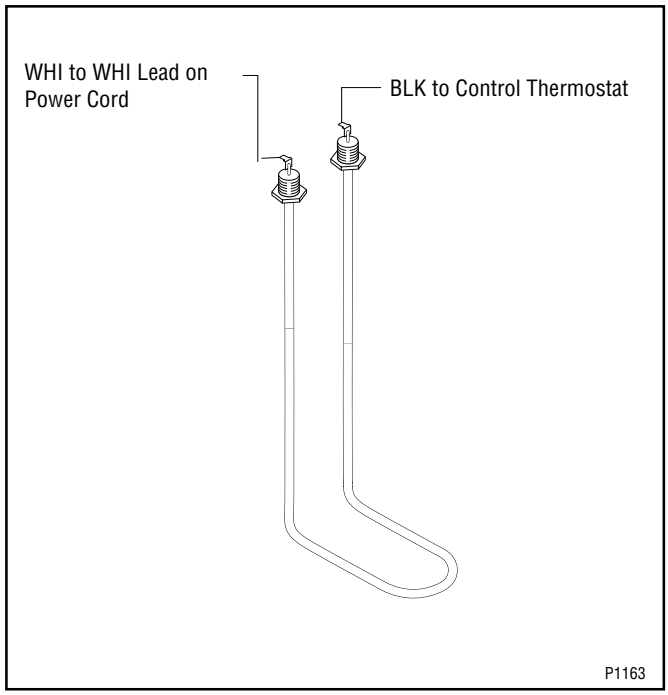
NOTE- If the tank heater remains unable to heat, remove and inspect heater for cracks in the sheath.

Removal and Replacement:

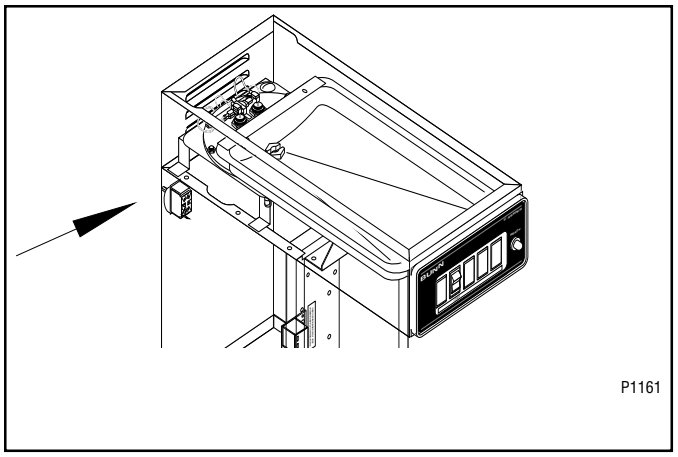
1. Remove the tank inlet fitting securing the fill basin to the tank lid, remove fill basin and tank inlet gasket. Set all three parts aside for reassembly.
2. Disconnect the black wire on the limit thermostat from the tank heater switch and disconnect the blue wire from the limit thermostat to the control thermostat.
3. Disconnect the black wire and the white or red wire from the tank heater terminals.
4. Remove sprayhead and the hex nut securing the sprayhead tube to the hood. Set aside for reassembly.
5. Remove the eight #8-32 nuts securing the tank lid to the tank.
6. Remove the tank lid with limit thermostat, sprayhead tube and tank heater
7 Remove the two hex nuts securing the tank heater to the tank lid. Remove tank heater with gaskets and discard.
8. Install new tank heater with gaskets on the tank lid and secure with two hex nuts.
9. Install tank lid with limit thermostat, sprayhead tube and tank heater using eight #8-32 hex nut.
10. Secure spayhead tube to hood using a hex nut.
11. Install sprayhead.
12. Reconnect the wires to the limit thermostat, tank heater and control thermostat. See limit thermostat and control thermostat sections in this manual when reconnecting wires.
13. Install fill basin, secure with tank inlet fitting and gasket.
14. Refer to the illustration on the next page when reconnecting the tank heater wires.

SERVICE (cont.)

TANK HEATER (Cont.)



TANK HEATER SWITCH



Location:

On VP17 the tank heater switch is located on the rear of the brewer on the upper left side of the trunk.

Test Procedure:

1. Disconnect the brewer from the power source.
2. Disconnect the black wire from the limit thermostat.
3. With the tank heater switch in the "ON" position check the voltage between the black wire removed from the limit thermostat and the white wire wire on the tank heater with a voltmeter. Connect the brewer to the power source. The indication must be 120V volts ac.
4. Disconnect the brewer from the power source.

If voltage is present as described, proceed to #5.
If voltage is not present as described, refer to the *Wiring Diagrams* and check the brewer wiring harness.

5. Check for continuity between the black wire removed from the limit thermostat and the black insert on the terminal block. with the tank heater switch in the "ON" upper position. Continuity should not be present in the "OFF" lower position.

If continuity is present as described, the tank heater switch is operating properly.
If continuity is not present as described, replace the tank heater switch.

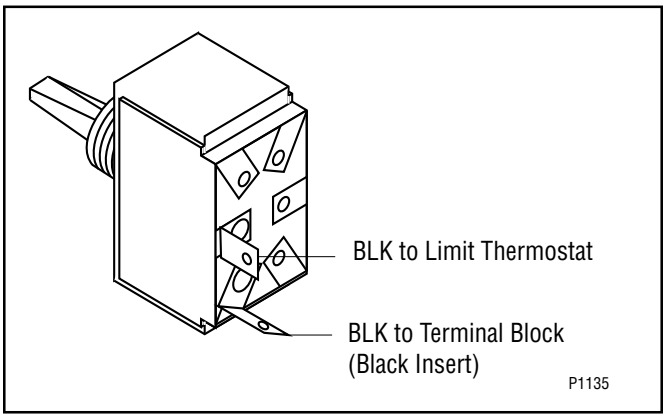
Removal and Replacement:

1. Remove the tank inlet fitting securing fill basin the tank lid. Remove fill basin and gasket. Set all three parts aside for reassembly.
2. Remove sprayhead and hex nut securing sprayhead tube to the hood. Set aside for reassembly.
3. Disconnect the wires on the limit thermostat and the tank heater.
4. Gently pull the thermostat sensor and grommet from the tank lid.
5. Insert a tube to the bottom of the tank and syphon ALL of the water out. (BUNN-O-MATIC has #12440 syphon assembly available for this purpose.
6. Gently reinstall the thermostat sensor and grommet in the tank lid.
7. Remove the two #8-32 screws securing the tank assembly to the hood.
8. Lift tank and components out as an assembly and set aside for reassembly.
9. Disconnect the two black wires from the tank heater switch.
10. Remove the plastic facenut, hex facenut and the switch indicator/guard bracket that secures tank heater switch to the rear of the brewer. Remove switch and discard.

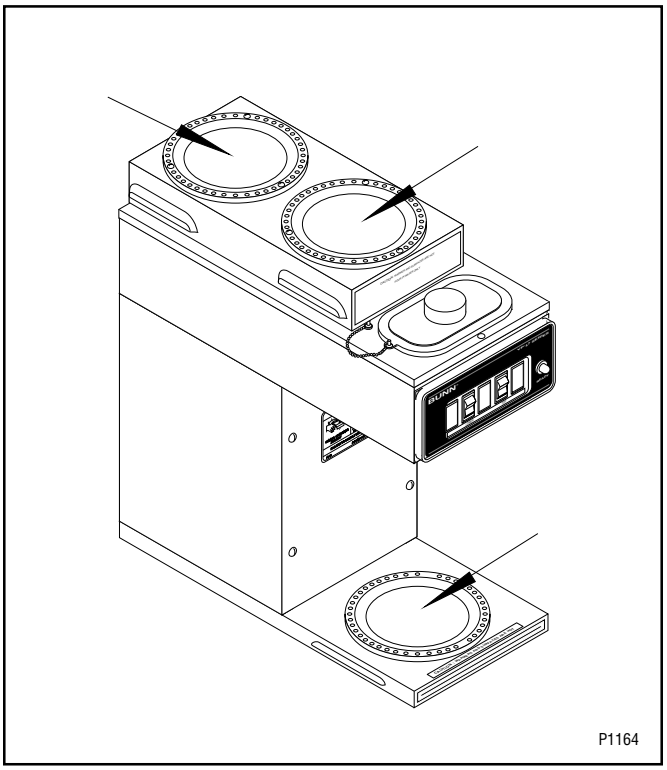
SERVICE (cont.)

TANK HEATER SWITCH (cont.)

11. Insert new tank heater switch through the hole in the upper left rear of the trunk and secure with
    switch indicator/guard bracket, hex facenut and plastic facenut.
12. Reconnect the two black wires the tank heater switch terminals.
13. Set tank assembly inside the hood on mounting brackets and secure with two #8-32 screws.
14. Reconnect the wires to the limit thermostat, tank heater and the control thermostat. Refer to limit thermostat, tank heater and control thermostat sections in this manual when reconnecting wires.
15. Secure the sprayhead tube to the hood using hex nut.
16. Install sprayhead.
17. Install fill basin, inlet gasket and secure to tank lid with tank inlet fitting.
18. Refer to the illustration below when reconnecting the wires.



WARMER ELEMENT(S)



Location:

The warmer element(s) is located under the warmer plate.

Test Procedures:

1. Disconnect the brewer from the power source.
2. Use the white to the power cord and the white/red, brown/black or violet wire to the "ON/OFF" switch.
3. Check voltage across the white and white/red, brown/black or violet with a voltmeter with the "ON/OFF" switch in the "ON" popsition. The indication must be 120 volts ac.
4. Disconnect the brewer from the power source.

If voltage is present as described, proceed to #5.
If voltage is not present as described, refer to wiring diagrams and check brewer wiring harness.

5. Check the continuity across the two terminals on the warmer element.

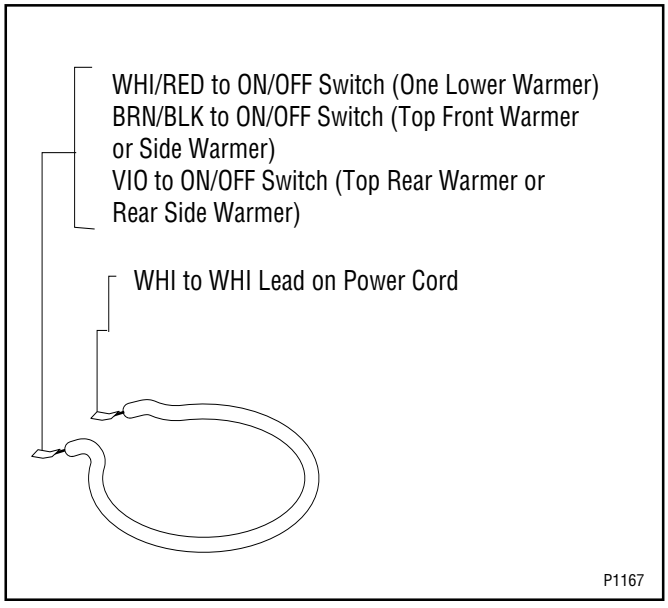
SERVICE (cont.)

WARMER ELEMENT(S)

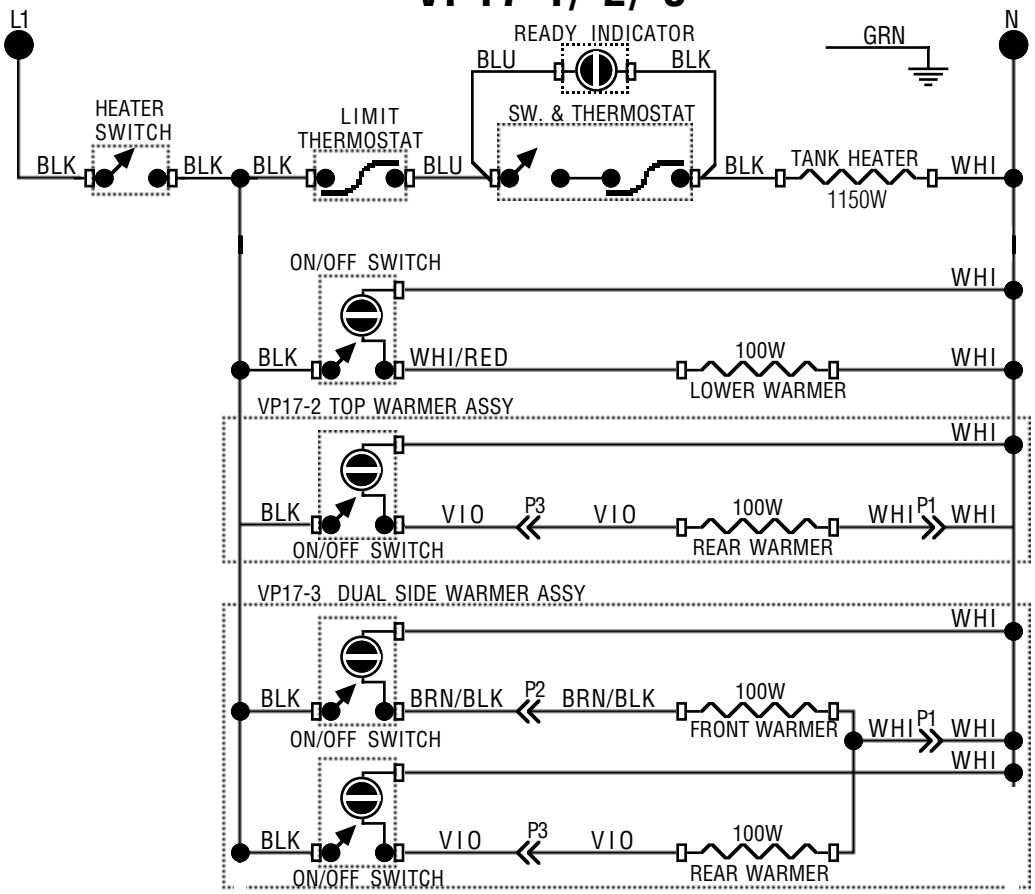
If continuity is present as described, reconnect the white and white/red, white or red and brown/black or the white or red and violet wires on the warmer element.
If continuity is not present as described, replace the warmer element.

Removal and Replacement:

1. Remove the three #4-40 screws securing the warmer assembly to the brewer.
2. Lift the warmer assembly from the brewer.
3. Disconnect the two wires from the warmer element terminals.
4. Remove the two #8-32 nuts securing the warmer element to the warmer plate.
5. Securely install new warmer element.
6. Reconnect the two wires to warmer element terminals.
7. Securely install warmer assembly on the brewer.
8. Refer to the illustration below when reconnecting the wires.


WHI/RED to ON/OFF Switch (One Lower Warmer)
BRN/BLK to ON/OFF Switch (Top Front Warmer or Side Warmer)
VIO to ON/OFF Switch (Top Rear Warmer or Rear Side Warmer)
WHI to WHI Lead on Power Cord
P1167

SCHEMATIC WIRING DIAGRAM
VP17-1/-2/-3



120 VOLTS AC 2 Wire
SINGLE PHASE

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